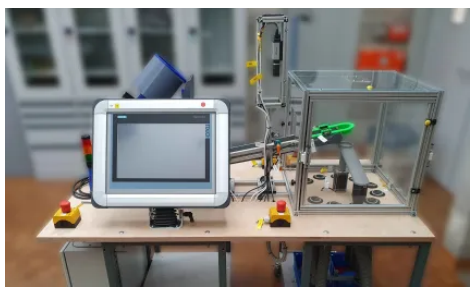
Practical case studies, in-depth technical articles, and helpful tech tips on industrial image processing

Knowledge Base

Versatile, powerful, and simple: IDS industrial cameras can handle any image processing task. Discover interesting insights and real added value relating to industrial cameras in our knowledge base.



Artificial intelligence
Automation
IDS NXT
IDS NXT rio
Object identification

How colorful clamping bricks become a gateway to the future of industrial automation

Technician training for Industry 4.0: German students build sorting machine and experience automation with image processing and AI.

11/4/2025

Artificial intelligence
IDS NXT
Robotic

Robot plays “Rock, Paper, Scissors” - Part 3/3

In part 3 of our serialized story we play: The robotic arm plays rock, paper, scissors with a human.

9/16/2025

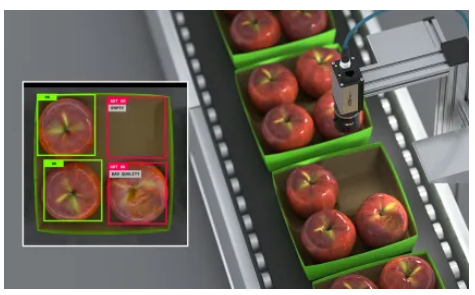
Adhesive
Artificial intelligence
IDS NXT
Quality
Wood

Intelligent quality inspection of glued joints in the wood industry

Testing the glued joints of multi-layer parquet with the help of the AI-based all-in-one vision system IDS NXT.

11/19/2024

Artificial intelligence
IDS NXT
Robotic



Artificial intelligence
Embedded
IDS NXT

Artificial intelligence
IDS NXT
Robotic

Detecting, sorting,

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Please contact our team, we will be happy to help you.

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Videos and live sessions about machine vision.

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A vision app as a simulated computer opponent

Part 2 of our follow-up story deals with the further processing of the recognized gestures using the vision app as an AI opponent.

1/15/2024

counting

Intelligent embedded vision systems simplify the integration of AI vision not only for experts, but also for citizen developers.

1/10/2024

Gesture recognition with intelligent camera

Sebastian Trella is passionate about technology and robotics. In his own blog, he is always taking on new tasks.

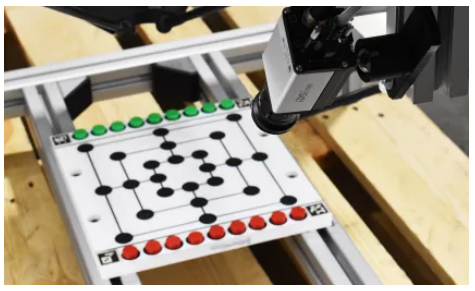
10/15/2023

Automation Embedded IDS NXT Image processing Interface

Smaller, faster and more intelligent

Industrial cameras have evolved rapidly in recent years, based on three main trends: "smaller, faster, smarter".

10/5/2023



Artificial intelligence Embedded IDS NXT Object recognition R&D Robotic

“Game changer” IDS NXT

Two robots playing the board game Mill - independent of each other's location: Learn all about the challenges, the solution and how the AI vision system IDS NXT was able to support them in this interview.

5/31/2023

Artificial intelligence IDS NXT

Anonymizing AI

AI-based embedded vision solutions represent the ideal technology mix for processing sensitive camera data in compliance with data protection regulations.

6/13/2022

Apps Artificial intelligence IDS NXT Robotic

EyeBot – Vision Guided Robot

In this use case, we show how typical pick [&] place tasks can be automated intelligently with a robot and an AI vision camera without the need for a PC.

Apps Artificial intelligence Deep Learning IDS NXT Inference camera

Explainable AI

Easy-to-use software tools can help to make decisions of an artificial intelligence visible and thus more explainable and comprehensible for everyone.

Apps Artificial intelligence Deep Learning Embedded IDS NXT Inference camera

AI - playground or industrial tool?

AI works differently from rule-based image processing and there are still reservations about the new

4/6/2022

3/30/2022

technology. There is a lack of acceptance and explainability.

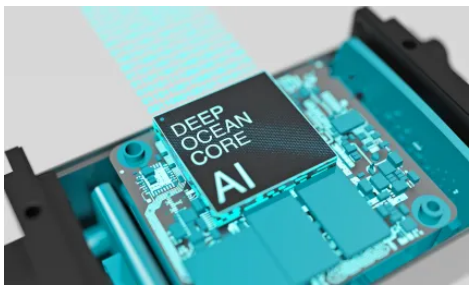
9/15/2021

Apps Artificial intelligence IDS lighthouse IDS NXT IDS NXT rio IDS NXT rome Industry Quality

AI Applications of Inference Cameras

The application possibilities based on intelligent cameras are almost limitless. The technology is transforming virtually every industry - and is no longer just a topic for image processing experts.

5/3/2021



Apps Deep Learning Embedded IDS NXT Inference camera Sustainability

Sustainable edge intelligence

How can artificial intelligence be used efficiently and sustainably in small, resource-optimized embedded devices?

4/19/2021

Apps Artificial intelligence Deep Learning Factory / process automation IDS NXT IDS NXT rio IDS NXT rome Industry Inference camera OPC UA

Interfacing IDS NXT using OPC UA

IDS NXT cameras can now be integrated into factory automation system through a built-in OPC UA server.

1/14/2021

Artificial intelligence Deep Learning IDS lighthouse IDS NXT IDS NXT rio IDS NXT rome Industry Object recognition Quality

AI for the food industry

IDS NXT cameras with artificial intelligence can solve tasks involving the detection of organic and variant-rich objects.

12/16/2020

Artificial intelligence Automation Deep Learning Embedded IDS lighthouse IDS NXT IDS NXT rio IDS NXT rome Inference camera OPC UA

Inference by recipe

With OPC UA, AI-based machine vision tasks can now be integrated directly into factory automation.

11/22/2020

C/C++ IDS NXT IDS NXT rio IDS NXT rome Inference camera Interface Python Software

Interfacing IDS NXT

How to integrate IDS NXT cameras into production automation as vision sensors? Which interfaces are available?

5/6/2020

Artificial intelligence
Deep Learning
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Inference camera

AI for all

All-in-one solution makes deep learning user friendly. With IDS NXT Experience Kit, the technology is now available to everyone.

12/4/2019

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